Abstract of the Disclosure

An integrated circuit metal oxide semiconductor device comprises a gate region and a dielectric layer positioned therein, wherein the dielectric layer is substantially free of germanium diffused therein from a silicon germanium layer of the device. The method comprises depositing a dummy replacement gate, subjecting the device to high temperature processing, removing the dummy gate, and then depositing a dielectric material and a final gate material within the formed gate region. Because the dielectric material is deposited after high temperature processing of the device, there is negligible diffusion of germanium into the dielectric material.